

## THE EFFECTS OF IMPLEMENTING A GRATITUDE DEVELOPMENT PROGRAM ON THE QUALITY OF LIFE AND HAPPINESS OF UPPER ELEMENTARY SCHOOL STUDENTS

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### Abstract

The aim of this paper is to test the impact of the implementation of gratitude development program on the quality of life and happiness of sixth, seventh and eighth grade elementary school students. The total of 79 students of one elementary school from a rural part of Eastern Croatia participated in the research, divided into experimental (N = 39) and control (N = 40) groups. The gratitude development program was conducted once a day for a period of four weeks. The *Personal Well-Being Index for School Children* and the *Subjective Happiness Scale* were administered before and after the program. The results were processed by a two-way analysis of variance with repeated measurements on the first factor. There was a significant increase in the level of overall quality of life and specific quality of life domains in the experimental group in comparison to the control group. There were no significant changes in happiness level in the experimental group after the program. The findings contribute to a better understanding of the relationship of gratitude, the quality of life and the experience of happiness. Also, the results indicate the importance of using psychological interventions that can improve the quality of life of students in the educational context. The paper extensively discusses the usefulness of this research and its implications for future research.

**Key words:** elementary school, gratitude, happiness, quality of life

### INTRODUCTION

Research and intervention to promote the quality of life and subjective experience of happiness of children and young people is extremely important, especially when considering that as much as 32% of the world's population, which is approximately 2.5 billion, are children and young people under 20 years of age (United Nations, 2015; according to Wallander and Koot, 2016). Promoting quality of life and happiness has multiple benefits at the level of the individual, but also at the level of society, in the form of roles in the future of the whole community. One of the ways this can be done is through gratitude development programs, which are very common within positive psychology. Gratitude seems to be an extremely important factor in physical and mental health, social functioning, and a moderate to high association has

been found between gratitude and subjective well-being in younger adolescents (Froh, Sefick and Emmons, 2008; Froh, Kashdan, Ozimkowski and Miller, 2009). There are very few evaluations of gratitude development programs in children and youth in the literature (Froh, Kashdan, Ozimkowski, & Miller, 2009), as previous research has mostly focused on research into the development of gratitude in adults.

Defining gratitude depends on the conceptualization of the construct as a trait or condition. Emmons and McCullough (2003) advocate an approach to the exploration of gratitude as a personality trait and define gratitude as an attitude, emotion, personality trait, habit, moral value, or as one of the coping strategies. McCullough, Emmons, and Tsang (2002) state that a person who has a pronounced gratitude trait tends to recognize the other person's positive actions toward him/her, and is more likely to respond to that recognition with gratitude as an emotion. On the other hand, gratitude as an affective state differs from gratitude as a trait in that it occurs as a reaction to something unexpected and positive. It is important to distinguish a sense of gratitude from pride. Gratitude cannot be felt for oneself, but only for others, while pride means attributing credit for a particular virtue or outcome to oneself (Cigić Gavrilović, 2016).

Gratitude research is very important because a whole range of previous research indicates a high correlation between gratitude and various desirable outcomes, such as subjective well-being, life satisfaction, positive affect, and psychological functioning. In a previously described study, Emmons and McCullough (2003) observed a beneficial effect of gratitude on subjective well-being. It has also been found that gratitude leads to an increase in pleasant affects and a decrease in unpleasant affects (Polak and McCullough, 2006). Also, gratitude is associated with hope, optimism, and life satisfaction (McCullough, 2002). People who are more grateful are more likely to be optimistic, in a better mood, more likely to report experiencing pleasant affects, and less likely to experience unpleasant affects (McCullough, Tsang, & Emmons, 2004). Moreover, the experience of gratitude increases the likelihood of prosocial behavior, which favorably affects the well-being of the individual (Polak and McCullough, 2006).

## Aims

The aim of the research was to investigate whether the implementation of the gratitude development program affects the quality of life and experience of happiness of upper elementary school students.

## Method

The research included students from two sixth grades ( $N = 20$ ), two seventh grades ( $N = 21$ ) and two eighth grades ( $N = 38$ ) from a rural elementary school in Brod-Posavina County. A total of 79 students were included in the research, out of which 36 boys and 43 girls. The average age of students in the sample is  $M = 13.34$ ,  $SD = 0.870$ . It was determined by random which grade would be the experimental and which would be the control group.

Table 1. Description of the sample according to gender and grade

		Group					
		Experimental			Control		
		Gender			Gender		
		Male	Female	Total	Male	Female	Total
		N			N		
Grade	6th	2	5	7	3	10	13
	7th	3	8	11	4	6	10
	8th	13	8	21	11	6	17
	Total	18	21	39	18	22	40

At the beginning of the research, the participants had to write a personal password following oral instructions of the researcher and state their grade, gender and age. Subjective quality of life was measured by the *Personal Wellbeing Index-School Children* (PWI-SC, Cummins, & Lau, 2005). The questionnaire consists of seven subscales that multidimensionally measure life satisfaction in seven domains, which include satisfaction with material standards, health, life achievements, relationships, sense of security, sense of belonging to the community and satisfaction with a sense of security in the future. The answers are evaluated on a scale from 0 to 10, where "0" means "not at all satisfied", while "10" means "I am completely satisfied" with a particular area of assessment. The total score is formed as the arithmetic mean of the scores on all seven domains of the questionnaire. According to the author's instructions, the result is transformed into a percentage of the scale maximum (% SM), on a scale of 0-100. The Croatian version of the questionnaire was used, for which a double translation of the original questionnaire was made (from English to Croatian and vice versa), and the comprehensibility of the items was checked in the preliminary research for the purpose of diploma paper (Drventić, 2012). The reliability coefficients of the questionnaire in this study are  $\alpha = 0.66$  and  $\alpha = 0.68$ , which is slightly lower than those found in other studies, ranging from  $\alpha = 0.70$  to  $\alpha = 0.80$  (Drventić, 2012; Singh, Ruch, and Junnarkar, 2015). The *Subjective Happiness Scale* (SHS, Lyubomirsky, & Lepper, 1999) was used to measure the experience of happiness. The questionnaire consists of four statements that are used to assess the general level of happiness through absolute and relative assessment of happiness. A higher score implies a lower level of happiness, and the total score is formed by the average of the answers on all items of the questionnaire. The theoretical range of results is 1 to 7. In this research, the reliability of the questionnaires  $\alpha = 0.64$  and  $\alpha = 0.73$  was found. Maurović (2015) translated and published the metric characteristics of this questionnaire, including the factor structure, and found a reliability of  $\alpha = 0.77$ .

The research was conducted during April, May and June 2019. The research was approved by the school administration, and all parents signed a consent form for their children's participation in the research, informing them of the work program, intervention, and goal of the research. Prior to the start of the research, all students were familiar with the intervention and how it works. The research program was conducted according to a pre-established agreement with the school principal and pedagogue. The experimental design of this study is based on the research of Froh, Sefik, and Emmons (2008), with certain modifications, such as program duration, number of experimental groups, and instructions for participants.

The research was conducted in three phases: 1. initial examination in the week before the implementation of the program, 2. implementation of the program in the experimental group for four weeks, 3. final examination in the week after the implementation of the program. The initial survey lasted one school lesson, and the sociodemographic questionnaire, the *Personal Wellbeing Index-School Children*, and the *Subjective Happiness Scale* were applied. Before starting the testing, the researcher explained the instructions to the participants in detail, emphasizing the anonymity and that all the data would be analysed exclusively on the group and not on the individual level. Before starting the measurement, participants wrote their password at the top of the questionnaire according to the researcher's instructions, which guaranteed anonymity, in order to ensure the connection between the questionnaires of initial and final measurements. After the initial examination, a four-week gratitude development program was conducted in the experimental group. Every day at the beginning of the fourth school class, the researcher began the intervention by distributing a thank-you note. The task of the participants was to think carefully and write down three things they are grateful for that happened in the past day. No intervention was performed in the control group. Final testing after the program was performed in the experimental and control groups using the same protocol and the same measuring instruments.

## Results

Table 2 shows the arithmetic means and standard deviations for the quality of life variable in the experimental and control groups, before and after the program, while Table 3 shows the results of the analysis of variance for the quality of life variable.

Table 2. Descriptive statistics for variable quality of life in experimental and control group, before and after the program

Measurement	Group	N	M	SD	min.	max.
1.	Experimental	39	83,66	11,404	57,14	97,14
	Control	40	86,32	8,818	54,29	98,57
2.	Experimental	39	84,95	10,079	54,29	100,00
	Control	40	82,29	11,289	51,43	97,14

Legend: N = number of participants; M = arithmetic mean; SD = standard deviation; min. = the lowest score achieved; max. = the highest score achieved

Table 3. Results of a two-way analysis of variance for the quality of life variable in the experimental and control groups

Factors	df	F	p	$\eta_p^2$
Test time point	1	2,073	0,154	0,026
Type of group	1	0,000	1,000	0,000
Test time point x type of group	1	7,731	0,007	0,091

Legend: df = degrees of freedom; F = F ratio; p = probability;  $\eta_p^2$  = partial eta squared

As can be seen from Table 3, a two-way analysis of variance 2x2 (test time point x type of group) with repeated measurements on the first factor showed a significant F-ratio for the interaction of time point and group type variables with small effect size ( $F=7,731$ ,  $p<,05$ ,  $\eta_p^2=0,091$ ).

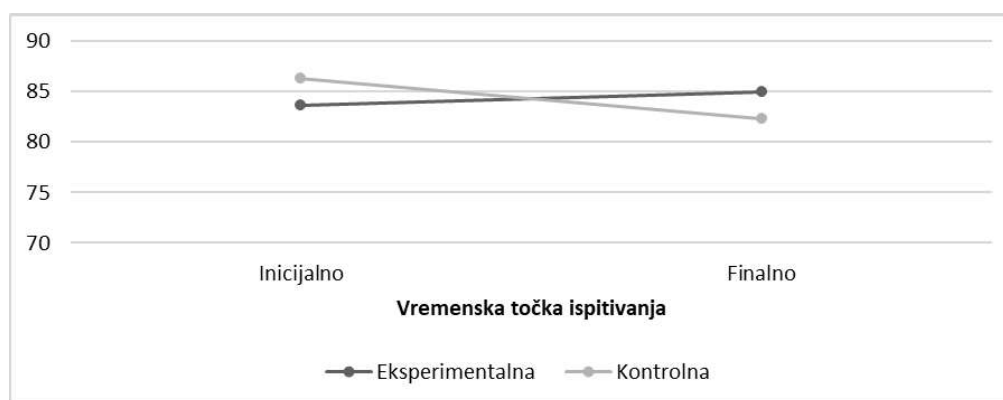


Figure 1. Average values for the quality of life variable in the experimental and control groups before and after the implemented program

Table 4 shows the arithmetic means, standard deviations, F-ratios and significance levels of the quality of life domains in the experimental and control group, before and after the program.

Table 4. Descriptive statistics, F-ratios and significance levels of the quality of life domains in the experimental and control group, before and after the program

Domains	Experimental		Control		F	p
	M (SD)		M (SD)			
	1st measurement	2nd measurement	1st measurement	2nd measurement		
Material standard	92,00 (13,996)	94,62 (10,220)	92,75 (12,401)	88,75 (12,234)	4,781	,032
Health	91,50 (10,754)	90,26 (11,582)	92,00 (12,649)	85,75 (15,671)	2,540	,115
Achievements	76,00 (22,280)	80,00 (21,764)	81,25 (16,670)	80,00 (19,742)	1,345	,250
Relationships	82,50 (19,315)	85,90 (13,902)	86,15 (13,882)	78,75 (16,670)	7,066	,010
Security	83,00 (16,361)	82,05 (20,797)	86,75 (17,451)	80,25 (24,336)	1,687	,198
Belonging to the community	78,00 (25,237)	77,95 (25,770)	82,75 (22,869)	83,00 (21,268)	,011	,918
Security in the future	81,25 (19,505)	83,85 (14,800)	82,50 (19,447)	79,50 (18,390)	1,913	,171

Legend: F-ratio for the interaction of the variables test time point and the type of group, p = level of significance

As can be seen from Table 4, a two-way analysis of variance 2x2 (test time point x type of group) with repeated measurements on the first factor showed a significant F-ratio for the interaction of test time point and type of group variables in the *Material Standard* and *Relationship* domains. No statistically significant F-ratios were found for the interactions of the test time point and type of group variables in the other quality of life domains. Table 5 shows the arithmetic means and standard deviations for the happiness variable in the experimental and control groups, before and after the program, while Table 6 shows the results of the analysis of variance for the happiness variable.

Table 5. Descriptive statistics for variable happiness in experimental and control groups, before and after the program

Measurement	Group	N	M	SD	min.	max.
1.	Experimental	39	5,19	1,094	2,25	6,75
	Control	40	5,21	1,062	2,75	7,00
2.	Experimental	39	5,17	1,281	1,75	7,00
	Control	40	5,24	1,128	2,25	7,00

Legend: N = number of participants; M = arithmetic mean; SD = standard deviation; min. = the lowest score achieved; max. = the highest score achieved

The two-way analysis of variance 2x2 with repeated measurements on the first factor did not indicate a significant F-ratio for the interaction of test time variables and type of group ( $F = 0.066$ ,  $p > 0.05$ ,  $\eta^2 = 0.001$ ), which shows that the level of happiness in the experimental group after the gratitude development program will not increase.

Table 6. Results of a two-way analysis of variance for the happiness variable in the experimental and control groups

Factors	Df	F	p	$\eta_p^2$
Test time point	1	0,002	0,962	0,000
Type of group	1	0,030	0,863	0,000
Test time point x type of group	1	0,066	0,798	0,001

Legend: df = degrees of freedom; F = F ratio; p = probability;  $\eta_p^2$  = partial eta squared

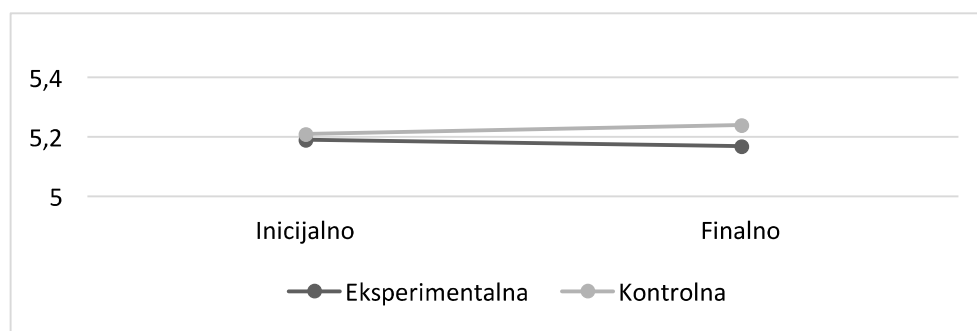


Figure 2. Average values for the happiness variable in the experimental and control groups before and after the implemented program

## Discussion

The results of this study showed a significant interaction of group type and test time point for overall quality of life, as well as the domain of satisfaction with material standards and satisfaction with relationships. In other words, in the experimental group there was an increase in the level of quality of life, satisfaction with living standards and satisfaction with relationships. The findings are consistent with the previously described study by Froh, Sefick, and Emmons (2008), who investigated the cause-and-effect relationship between gratitude and subjective well-being on a sample of 221 adolescents randomly divided into three groups over a two-week period. In that research, the task of the first group participants was to state what they were grateful for the previous day, while the task of the second group participants was to state what bothered them the most in the past day. The third group represents a control group that had no task. The results of their research showed that the first experimental group showed greater life satisfaction and satisfaction with school experience compared to the second experimental group. It is important to note that completing the gratitude list in the first experimental group significantly improved life satisfaction only compared to the second experimental group who had to complete the interference list, but not compared to the control group. A similar result was found by Emmons and McCullough (2003) with a sample of students through a daily expression of gratitude exercise, which showed that student whose task was to list all they were grateful for in the past day were happier with life in general and willing to help others than those students who stated what bothered them in the past day. However, the authors question the possibility of generalizing these results to younger age groups and emphasize the importance of conducting similar research on a group of school children.

Furthermore, the results of this research show that there is a significant interaction between group type and test time for satisfaction with living standards and satisfaction with the loved ones. This finding is supported by the results of the previous research. For example, Gordon, Musher-Eizenman, Holub, and Dalrymple (2004) conducted a qualitative study of

differences in student appreciation cases before and after September 11, 2001 attacks by writing essays on gratitude and identified the most prominent areas in which students were grateful and which included family, basic needs, friends, and school. From the abovementioned, it is evident that conscious and deliberate thinking about objects of gratitude at school age implies stating the family and basic needs, i.e., relationships with relatives and living standards, which are the most important areas of gratitude at school age.

In terms of happiness, no significant interaction of group type and testing time for happiness was found in this study. In other words, the intervention of developing gratitude in the form of enumerating what an individual is grateful for does not increase the level of happiness. Contrary to life satisfaction, which is a cognitive and long-term component of subjective well-being, the feeling of happiness is a short-term component and as such subject to fluctuations in the short term and under the influence of everyday events.

Seligman et al. (2005) conducted a gratitude development program that consisted of writing a letter of gratitude to a person who did something nice to a participant, but the participant never thanked him/her and the participant personally handed the letter to the person for whom the letter was intended. The results of this study showed that this form of gratitude development intervention leads to an increase in happiness levels and a decrease in depressive symptoms after one month of the intervention, with a return to the initial level after three months of the intervention. As the main explanation of this finding, the authors offered the possibility that the level of happiness is still a construct somewhat difficult to change and that it depends on a person's dispositions.

The findings obtained in this study can be explained by the fact that the preadolescence period represents a transitional period between childhood and adulthood, which sometimes manifests itself in sudden and unstable mood swings, which is why self-assessments of happiness levels at this age may be questionable (Froh, Sefick and Emmons, 2008).

It should be noted that in the context of general subjective well-being, a distinction can be made between life satisfaction as a long-term, cognitive component and feelings of happiness as a short-term affective component, which is expected to change over time. Finally, Froh et al (2011) state that the results of gratitude research between the ages of 10 and 13 are sometimes inconsistent due to developmental differences, i.e., it is possible that the gratitude mechanism has developed but not stabilized, and for that reason beneficial effects of gratitude development programs for some measures such as happiness may not be visible.

This research has greatly contributed to understanding the impact of a gratitude development program on positive outcomes, such as quality of life defined as life satisfaction in general and individual domains of life and happiness. To be more precise, it is clearer what the effects of keeping a gratitude diary are increasing the level of life satisfaction and happiness of upper elementary school students. According to current data, this research is among the first in Croatia to focus on the impact of the development of gratitude on the quality of life of preadolescents.

A very important contribution of this research is the implementation of this type of program in a school where a similar program has never been implemented before and its impact on the quality of life of students in rural, less developed areas, where the rate of parental education is lower than average, incomes are lower, and opportunities are narrowed compared to the urban environment. For example, during the implementation of the development of gratitude, students often pointed out satisfaction and many other pleasant emotions after stating what they are grateful for that day.

Moreover, statistical analysis found that students who participated in the program increased their satisfaction with living standards, which is of high practical importance for students living in an area of poverty, geographically separated from villages outside the municipality and the nearest town, with limited public transport and reduced opportunities for

extracurricular activities and interest development. Despite the abovementioned, students frequently emphasized gratitude for pocket money, clothing, other material things, and opportunities provided, so the skill of gratitude can be an important factor for them in developing resilience and promoting mental health.

Afterwards, school psychologists were offered an intervention with guidelines for the use in everyday work with students that has very favourable effects on the quality of life of upper elementary school students and a framework for continuing research, especially in those areas identified as lacking in this research. Through such gratitude development programs, the psychologist, together with the rest of the school's professional service, contributes to the development of a very important skill of intentional and targeted gratitude that remains for students in the long run, as an opportunity to implement in everyday life. Furthermore, class teachers could be taught to implement a gratitude development program, possibly as a classroom lesson project and planned through a school curriculum. Similarly, the implemented gratitude development program could be adapted and presented to parents through parent meetings, with the goal of encouraging parental gratitude development outside of school. The importance of implementing such programs that contribute to the quality of life of children and youth is evident in the wider community, as quality of life is the aspiration of each individual and an indicator of the development of a particular community, or even wider, society as a whole. Although the tasks of the gratitude development program are not easy to implement because a number of the abovementioned factors need to be taken into account, such as the age of the target student population, organization of tasks with regular classes, significant investment of time and maintaining a satisfactory level of student motivation throughout the program, potential value of the implementation of a gratitude development program in students is very high. Finally, no second experimental group was used in this study whose task was to intentionally and purposefully recall unpleasant events, with the aim of comparison with participants of the first experimental group, who listed everything they are grateful for, for questionable ethics of provoking unpleasant emotions for research purposes.

## Conclusion

This paper presents an evaluation of the gratitude development program characterized by daily completion of the gratitude diary over a period of four weeks and shows in what way the gratitude development program influences life satisfaction in general and the domain of living standards and satisfaction with relationships in sixth, seventh and eighth grades of elementary school. General life satisfaction is an indicator of subjective quality of life and represents a long-term component of the constructive subjective well-being construct, and this result is important in the context of improving subjective quality of life. Contrary to expectations, this research has not confirmed how the aforementioned gratitude development program affects the increase in happiness levels in students. The results of this evaluation of gratitude development programs can greatly benefit school psychologists in designing gratitude development interventions or similar positive psychology programs, primarily in working with students, but also with teachers and parents.



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